

Abstract of the Disclosure

[0125] A castable martensitic mold alloy and process for preparing same are disclosed. The composition is characterized by a ductile fine grain tempered martensite having an HRC of about 40 to about 50. The process includes forming a molten mixture of the components and then slow cooling same without requiring an additional tempering heat treatment step as is required in conventional techniques. The components comprise: a) from about 5.0 - 15% Cr; b) from about 0.5 - 15% Ni; c) from about 0.1 - 10% Mo; d) not more than about 2% Si; e) from about 0.1 - 2% Mn; f) from about 0.1 - 2% C; g) not more than about 1% S; h) not more than about 1% P; i) not more than about 5% B; j) and the balance being substantially Fe.

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